

This Brief provides highlights of IMO's Maritime Safety Committee's 95th session, which met from 3 to 12 June 2015. A number of amendments to SOLAS were adopted, as was a new Code for Gas Fueled Ships, which will enter into force on 1 January 2017. A more extensive report, the ABS International Regulatory News Update, on MSC 95 will be released on receipt of the formal report of the Committee by IMO.

## Adopted SOLAS Amendments

The following amendments to SOLAS were adopted and will enter into force on 1 January 2017.

- Cargo tank venting arrangements in SOLAS Chapter II-2 (MSC.392(95)) have been revised for new oil tankers constructed on/after 1 January 2017 that will require secondary means of venting to allow full flow relief of cargo or inert gas vapors at all times including in the event of damage to, or inadvertent closing of, the primary means of venting. More specifically:
  - Isolating valves* - fitted in cargo tank venting arrangements that are combined with other cargo tanks are to be so arranged to permit the passage of large volumes of vapor, air or inert gas mixtures during cargo loading and ballasting, or during discharging.
  - Secondary means for pressure/vacuum relief* - in the event of damage to, or inadvertent closing of, the required tank isolation valve arrangement noted above, either:
    - a secondary means of venting capable of preventing over-pressure or under-pressure is to be provided; or
    - pressure sensors are to be fitted in each tank which are to be monitored and alarmed at the ship's cargo control room or the position from which cargo operations are normally carried out.
  - Openings for small flow by thermal variations* – the requirement has been revised such that flammable vapors are to be released at least 6 m above the cargo tank deck (for free flow of vapor mixtures) or at least 2 m above the cargo tank deck provided the vent outlet is to be fitted with a type approved high-velocity device providing a rate of release of at least 30 m/s. Additionally, all openings are now to be located not less than 10 m measured horizontally from the nearest air intakes and openings to enclosed spaces containing a source of ignition. Previously, the release needed to be not less than 2 m above the cargo tank deck and 5 m from the nearest air intakes and openings to enclosed spaces containing a source of ignition.
- Power ventilation systems serving vehicle, special category and ro-ro spaces on new passenger and cargo ships constructed on/after 1 January 2017 are to deliver the specified number of air changes (6 or 10 air changes per hour depending on ship type and space served as specified in SOLAS) at all times when vehicles are in such spaces. The new amendments to SOLAS Chapter II-2 (MSC.392(95)) allow for a reduction in the number of air changes if an air quality control system complying with the revised provisions adopted by the Committee (see **New Performance Standards**, below) is fitted. Such ventilation systems, when fitted onboard passenger ships, are to be separate from other ventilation systems.
- Self-unloading bulk carriers – Amendments of the mandatory provisions of Section 3 (Safety of personnel and ship) of the International Maritime Solid Bulk Cargoes (IMSBC) Code provide interim measures for self-unloading bulk carriers taking into account the lack of regulations addressing the flammability of elements of the conveyor belt and the current assessment of fire detection technology in progress. The amendment, as contained in new resolution MSC.393(95), require the ship's crew to conduct from 1 January 2017 regular on board operational fire safety risk assessments of cargo handling areas on self-unloading bulk carriers with internally installed conveyor systems. The timing of the assessments should be defined by the Company in the Safety Management System of the ship

- Intact Stability Code was revised (MSC.398(95)) with respect to the non-mandatory provisions of Part B, to address the means to account for ice accretion on cargo ships carrying timber deck cargoes.

## IGF Code

The Committee adopted amendments to SOLAS Chapter II-1 Part G (MSC.392(95)) and the Code of Safety for Ships Using Gases or Other Low-Flashpoint Fuels, IGF Code (resolution MSC.391(95)). The Code's mandatory provisions will enter into force on 1 January 2017 and will apply to new cargo ships  $\geq 500$ gt and passenger ships using natural gas fuel:

- with a building contract placed on or after 1 January 2017; or
- in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction on or after 1 July 2017; or
- regardless of the building contract or keel laying date, the delivery is on or after 1 January 2021.

The IGF Code does not apply to gas carriers certified to the IGC Code which use their cargoes as fuel or use other low-flashpoint gaseous fuels provided that the fuel storage and distribution systems design and arrangements for such gaseous fuels comply with the requirements of the IGC Code for gas as a cargo.

Two additional amendments to SOLAS were also adopted:

- SOLAS regulation II-2/4 was amended to allow existing ships that were approved to use oil fuels with flashpoint less than 60°C, for example fuel oils less than 60°C but not less than 43°C in emergency generators, to continue using such oil fuels after the IGF Code comes into effect on 1 January 2017. This allowance is accepted provided that the ship is not converted to use low-flashpoint fuels, or does not commence the use of low-flashpoint fuels that are different from that which it was previously approved to use, after entry into force of the IGF Code on 1 January 2017. At present, the requirements for low-flashpoint fuel oils (residual or distillate fuel oils) with a flashpoint less than 60°C are under development for future inclusion in the IGF Code.
- SOLAS Part F Regulation 55 was revised to account for the IGF Code requirement that ships using other low-flashpoint fuels (methanol, propane, butane, ethanol, hydrogen, dimethyl ether, etc.) need to comply with the functional requirements of the Code through the alternative design regulation based on an engineering analysis. Operationally-dependent alternatives are not permitted.

The adopted Code includes several significant provisions which were previously agreed at MSC 94 (see <http://ww2.eagle.org/content/dam/eagle/regulatory-news/2015/MSC%2094%20Update.pdf>) with the exception of the provision for risk assessment application criteria which was refined at MSC 95. The Committee clarified that, for ships using natural gas as fuel (part A-1 of the IGF Code) and complying with the detailed prescriptive requirements contained within the Code, a risk assessment need only be conducted where specifically required by the applicable prescriptive parts of the IGF Code, e.g. sizing of drip trays, closed or semi-enclosed bunker stations, or fuel containment systems, etc. It is expected that this development will significantly simplify the risk assessment process for ship designers looking to utilize natural gas as fuel.

New regulation V/3 (MSC.396(95)) and corresponding sections to Parts A (MSC.397(96)) and B of the 1978 STCW Convention containing training and qualifications of personnel that work on ships subject to the IGF Code were adopted. Criteria was included to ensure that certain personnel, with training and experience acquired for liquefied gas tankers, receive recognition towards the new mandatory training and qualification requirements specified in the Convention for ships subject to the new IGF Code.

## Approved SOLAS Amendments

The following amendments to SOLAS and associated instruments were approved and, subject to adoption at MSC 96 in May 2016, will enter into force (under IMO's new four-year cycle) on 1 January 2020 and apply to new ships constructed on/after this date.

- ESP Code – The Enhanced Survey Program Code was revised to refer to recommendations for entering enclosed spaces aboard ships set forth under resolution A.1050(27), so as to promote safe access by surveyors carrying out the surveys.

- Fire Systems Safety (FSS) Code – the Committee approved a new Chapter 17 of the FSS Code which contains specifications for foam firefighting appliances for the protection of helicopter facilities on new SOLAS-certified ships and MODUs. The specifications reflect those contained in MSC.1/Circ.1431 which will be revoked upon adoption of the new Chapter 17.
- Intact Stability Code - the non-mandatory provisions of part B were revised, consequential to the amendments to the introduction of the 2008 IS Code regarding vessels engaged in anchor-handling operations. In addition to specifying a minimum stern freeboard during these operations, minimum thresholds are provided for the magnitude and area of the righting lever curve relative to the heeling lever curve caused by the vertical and horizontal components of the anchor-handling wire tension. A comprehensive operational plan should be developed for each anchor-handling operation.
- Watertight doors – SOLAS II-1/22 was revised to remove two of the provisions for determining when certain watertight doors may be permitted to remain open during navigation. Doors that needed to be open for the safe and effective operation of the ship's machinery and to permit unrestricted access throughout the passenger area are no longer permitted under this regulation on the basis of current technologies for door operation. Associated guidance is contained in new MSC.1/Circ.1506 for determining which watertight doors on passenger ships may be opened only if absolutely necessary during navigation.

### **New Performance Standards**

The Committee approved several MSC Circulars containing new or revised performance standards which are recommended to be used in conjunction with the application of SOLAS Chapter II requirements as highlighted below:

- Smoke Management Systems - Functional and system requirements are provided in new MSC.1/Circ.1514 for assessing smoke management systems fitted onboard passenger ships. Such systems handle smoke movement to facilitate safe evacuation of persons in case of fire by preventing the ingress of smoke into escape routes.
- Ventilation systems in ro-ro cargo spaces - Guidelines and operational recommendations for these systems on ro-ro ships, car carriers and car ferries were revised and are contained in new MSC.1/Circ.1515 (supersedes MSC/Circ.729). While the rate of air change is specified in SOLAS Chapter II, these guidelines address the means to dilute gases generated by internal combustion engines by using exhaust and supply air ventilation.
- Water mist, water spray and sprinkler systems – Guidelines in new MSC.1/Circ.1516 address the minimum recommended level of maintenance and inspections of these systems to focus on the testing of water quality in all piping sections. For each section where the water is refilled after being drained or flushed, water quality should meet manufacturer's guidelines. The Committee also approved an associated amendment to the Fire Systems Safety Code relative to the specification of water quality provided by the system manufacturer to prevent internal corrosion and clogging of sprinkler heads.

### **Unified Interpretations**

The Committee approved several MSC Circulars containing Unified Interpretations on the following items:

- The Noise Code (MSC.337(91)) - clarification is provided in new MSC.1/Circ.1509 on noise levels for spaces not specifically called out for in the Code, the condition of ship and equipment when taking measurements of noise levels, and the extent of acoustic insulation to be provided between accommodation spaces and various adjacent spaces.
- Insulation arrangements for prevention of heat transmission at intersecting steel decks and/or bulkheads are specified in new MSC.1/Circ.1510 which takes into account special arrangements to allow for drainage of accumulated water.
- Fiber reinforced plastic gratings – conditions for use in providing safe access to tanker bows under SOLAS II-1/3-3 is clarified by new MSC.1/Circ.1504 with respect to low-flame spread characteristics and fire integrity.

- Ro-ro/vehicle spaces – clarification is provided in new MSC.1/Circ.1511 with respect to the extent of insulation required for ventilation ducts and movable ramp systems serving those spaces.
- Two means of escape from ro-ro spaces where the crew are normally employed as per SOLAS II-2/13.6 is clarified by new MSC.1/Circ.1505. One of the means of escape should be a stairway and the second escape may be a trunk or a stairway. The means of escape are to be located from the forward most and after most points of the ro-ro space by a distance no greater than the breadth of the ro-ro space.
- Means of Safe Access – to double-bottom spaces or to forward ballast tanks is clarified by new MSC.1/Circ.1507. Access may be from a pump-room, deep cofferdam, pipe tunnel, cargo hold, double-hull space or similar compartment not intended for the carriage of oil or hazardous cargoes. The interpretation also clarifies that cargo holds carrying hazardous cargoes may be used for safe access, provided the recommendations for entering enclosed spaces aboard ships, as per resolution A.1050(27), is applied.
- ESP Code – A new MSC.1/Circ.1502 was approved which contains guidelines for the implementation of amendments of the Enhanced Program of Inspections during Surveys of Bulk Carriers and Oil Tankers (ESP Code) adopted in November 2014 by resolution MSC.381(94), which allow for cargo tank testing to be carried out by the vessel's crew under the direction of the master. Such testing may be accepted provided a tank testing procedure has been approved, there is no record of leakage, distortion or substantial corrosion, it is completed within 3 months the survey on which the overall or close up survey carried out by the Recognized Organization surveyor and that the condition of the tanks are found satisfactory by the surveyor. The new Guidance, approved as a circular, provides the details of the report of the tank's condition, including any deficiencies, to be completed by the master, which is to be recorded in the ship's logbook and retained onboard.
- Oxygen content of inert gas – the interpretation in new MSC.1/Circ.1501 allows for the oxygen content of inert gas to exceed the threshold as defined in, and allowed for by, SOLAS Chapter II-2, Regulation 16 (5% by volume), for products containing an oxygen-dependent inhibitor (an additive which depends on oxygen to maintain the chemical composition or physical state of the product carried onboard a chemical tanker). The oxygen content of inert gas is to be in accordance with the value specified by the additive's manufacturer in the Certificate of Protection as required by paragraph 15.13 of the IBC Code.
- Continuous hatchways under the 1966 ICLL and the treatment of more than one hatchway insofar as being treated as a "continuous hatchway" is clarified by MSC.1/Circ.1508 with respect to arrangements that are eligible as a "trunk" which is credited towards a reduction in the minimum geometric freeboard computation.